



TEST REPORT

Application No.: HR/2019/B0013
Applicant: Telcare, LLC
Address of Applicant: 150 Baker Avenue Extension Suite 300 Concord, MA 01776 United States
Manufacturer: Telepoch LTD
Address of Manufacturer: Room 602, Floor 6th, Building B, Software Park T3, Hi-Tech Park South, Nanshan District, Shenzhen, P.R. China 518057
Factory: ShenZhen Luckcome Technology INC., LTD
Address of Factory: 6A , Building 6, Tongfuyu Industry Park, Tanglang, Xili Town, Nanshan District, Shenzhen, Guangdong, China
EUT Description: Blood Glucose Meter
Model No.: BGM4.0
Trade Mark: BioTel
FCC ID: 2AVLMCARE01
Standard(s) : 47 CFR Part 15, Subpart B
Date of Receipt: 2019-12-20
Date of Test: 2019-12-20 to 2020-1-9
Date of Issue: 2020-1-10

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

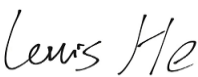
Authorized Signature:

Derek Yang

Wireless Laboratory Manager



Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2020-1-20		Original

Authorized for issue by:				
		 (Louis He) /Project Engineer		
		 (David Chen) /Reviewer		

2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at Mains Terminals (150kHz-30MHz)	47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass
Radiated Emissions (30MHz-1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass
Radiated Emissions (above 1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4:2014	Class B	Pass

Internal Source	Upper Frequency
Below 1.705MHz	30MHz
1.705MHz to 108MHz	1GHz
108MHz to 500MHz	2GHz
500MHz to 1GHz	5GHz
Above 1GHz	5th harmonic of the highest frequency or 40GHz, whichever is lower

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4 General Information

4.1 Details of E.U.T.

Adaptor:	model: XYLC5W-4.8V0.5A-1299 Input: 100-240V~50/60Hz, 0.19A Out Power: 4.8V / 0.5A
Battery	model: AC0010 Standard Capacity: 980mAh 3.773Wh Nominal Voltage:3.85V
EUT Description::	Blood Glucose Meter
Model No.:	BGM4.0
Trade Mark:	BioTel
Hardware Version:	BG2802_MB_V2.2
Software Version:	BG2802_01.01.07.131752
Antenna Gain:	LTE Band 2: 0.9dBi; LTE Band 4: 0.7dBi LTE Band 5: -1.2dBi LTE Band 13: -1.5dBi LTE Band 25: 0.9dBi LTE Band 26: -1.2dBi LTE Band 66: 0.7dBi Bluetooth/2.4G WiFi: 1.2dBi GNSS RX

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	Lenovo	T430u	REF. No.SEA1800
Mouse	Lenovo	M-U0025-O	REF. No.:SEA2400
Router	NETGEAR	DGN2200	REF. No.SEA2200

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 3.4dB (150kHz to 30MHz)
2	Radiated Emission	± 4.8dB (30MHz-1GHz)
		± 5.2dB (1GHz-6GHz)
		± 5.5dB (6GHz-18GHz)
		± 5.02dB (18GHz-40GHz)
3	Temperature test	± 1°C
4	Humidity test	± 3%



4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Xi'an Branch

Single floor D, building 1, Kanghong orange square science and technology park, No.137 keyuan 3rd road, fengdong new town, Xi 'an city, shanxi China. 518057.

Tel: +86 (0) 29 6282 7885 Fax: +86 (0) 29 6282 7885

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 4854.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES CO., LTD. XIAN BRANCH

is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4854.01.

Test Site No.:	SGS Xian Site No.		FCC Designation No.
	CO01-XA	03CH01-XA	CN1271

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Radiated Emissions (30MHz~ 40GHz)					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
966 Test chamber	Brilliant-emc	NA	XAW040101	2019/6/11	2022/6/9
BiConiLog Antenna (30MHz-3GHz)	rosenberge	VULB 9163	XAW010901	2018/8/8	2021/8/7
Horn Antenna (800MHz-18GHz)	rosenberger	BBHA 9120D	XAW010902	2018/7/18	2021/7/17
Horn Antenna (18-40GHz)	rosenberge	BBHA 9170	XAW010903	2018/8/1	2021/7/31
Amplifier(9kHz-3GHz)	Tonscend	TAP00903040	XAW030601	2019/11/18	2020/11/18
Amplifier(100MHz-18GHz)	Tonscend	TAP01018048	XAW030602	2019/11/18	2020/11/18
Amplifier(18-40GHz)	Tonscend	TAP18040048	XAW030603	2019/11/18	2020/11/18
Radio Communication Analyzers	Anritsu	Mt8820c	XAW020223	2019/6/27	2020/6/26
Test receiver	Rohde & Schwarz	ESR	XAW010801	2019/9/7	2020/9/6
MXA signal analyzer	Rohde & Schwarz	FSV	XAW040103	2019/4/1	2020/3/31
Measurement Software	Tonscend	TS+	N/A	N/A	N/A
Filter bank	Tonscend	JS0806-F	N/A	N/A	N/A
Filter bank	Tonscend	JS0806s	N/A	N/A	N/A
Artificial network	Rohde & Schwarz	ENV216	N/A	2019/7/16	2020/7/16

Conducted Emissions at Mains Terminals (150kHz-30MHz)					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
Shield Room	Brilliant-emc	NA	XAW08043	NA	NA
Test receiver	Rohde & Schwarz	ESR	XAW010801	9/7/2019	9/6/2020
Artificial network	Rohde & Schwarz	ENV216	XAW010401	7/16/2019	7/15/2020
Artificial network	Rohde & Schwarz	ENV216	XAW013001	3/11/2019	3/10/2020
Cabel	SGS	NA	NA	NA	NA

6 Emission Test Results

6.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

Test Requirement:	47 CFR Part 15, Subpart B
Test Method:	ANSI C63.4:2014
Frequency Range:	150kHz to 30MHz
Limit:	
0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average
0.5M-5MHz	56dB(μV) quasi-peak, 46dB(μV) average
5M-30MHz	60dB(μV) quasi-peak, 50dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

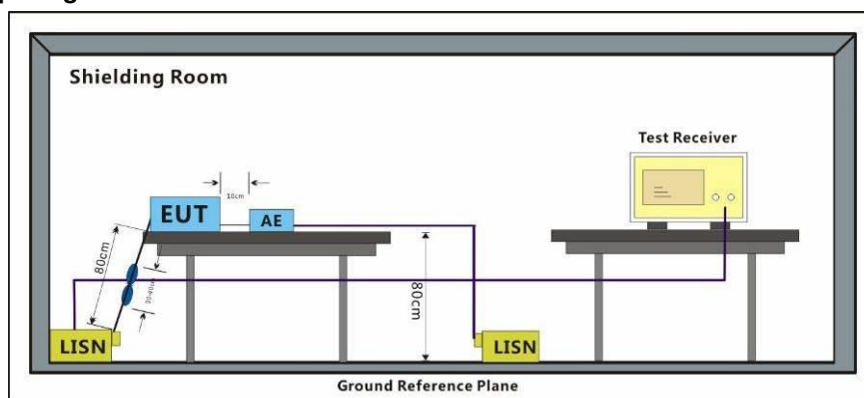
6.1.1 E.U.T. Operation

Operating Environment:

Temperature:	18.9 °C	Humidity:	55.1 % RH	Atmospheric Pressure:	1000 mbar
Pretest these modes to find the worst case:	o: LTE Band 2 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Front p: LTE Band 4 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Back q: LTE Band 5 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+MPE r: LTE Band 13 Rx +WiFi +BT+GPS Rx+Adapter +Earphone s: LTE Band 25 Rx +WiFi +BT+GPS Rx+Adapter +Earphone t: LTE Band 26 Rx +WiFi +BT+GPS Rx+Adapter +Earphone u: LTE Band 66 Rx +WiFi +BT+GPS Rx+Adapter +Earphone v: LTE Band 25 Rx +WiFi +BT+GPS Rx+USB link +Earphone				

The worst case for final test: p: LTE Band 4 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Back

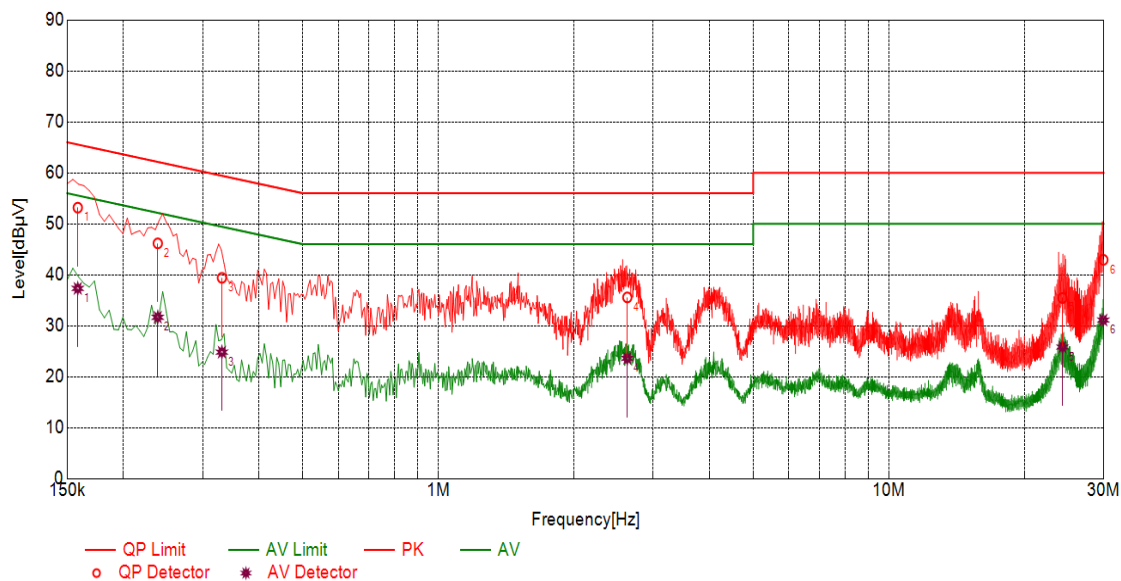
6.1.2 Test Setup Diagram



6.1.3 Measurement Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

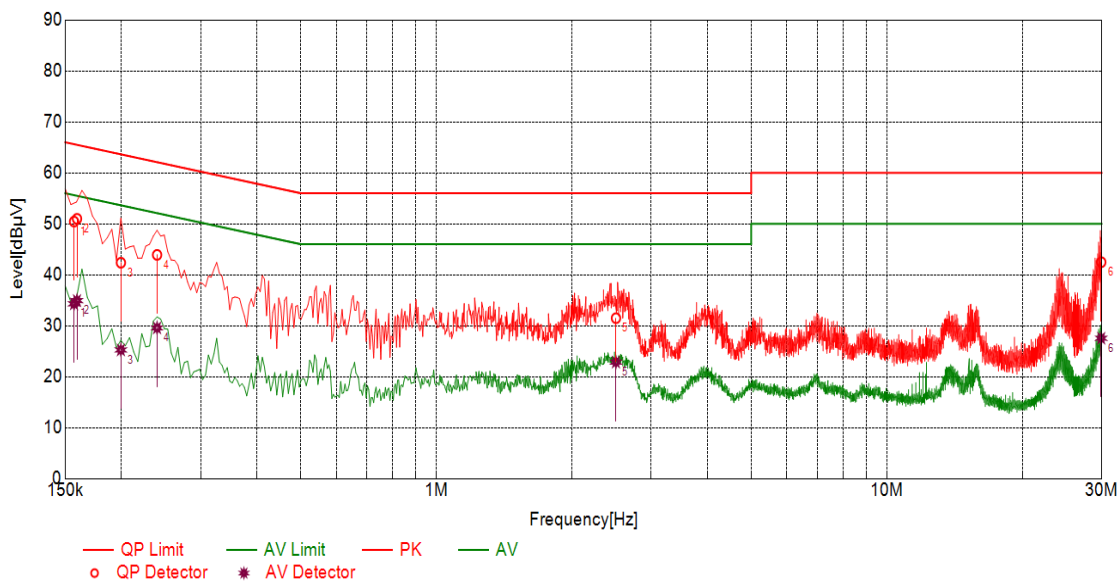
Mode:p; Line:Live Line



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Type
1	0.1584	10.10	53.17	65.55	12.38	37.32	55.55	18.23	L
2	0.2384	10.10	46.16	62.15	15.99	31.66	52.15	20.49	L
3	0.3309	10.10	39.40	59.43	20.03	24.82	49.43	24.61	L
4	2.6272	10.10	35.56	56.00	20.44	23.60	46.00	22.40	L
5	24.2856	10.11	35.46	60.00	24.54	25.82	50.00	24.18	L
6	29.9297	10.11	42.94	60.00	17.06	31.11	50.00	18.89	L

Mode:p; Line:Neutral Line



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Type
1	0.1570	10.10	50.44	65.62	15.18	34.30	55.62	21.32	N
2	0.1594	10.10	50.99	65.49	14.50	34.94	55.49	20.55	N
3	0.1995	10.10	42.37	63.63	21.26	25.25	53.63	28.38	N
4	0.2400	10.10	43.91	62.10	18.19	29.57	52.10	22.53	N
5	2.5044	10.10	31.49	56.00	24.51	22.87	46.00	23.13	N
6	29.9103	10.11	42.48	60.00	17.52	27.54	50.00	22.46	N

6.2 Radiated Emissions (30MHz-1GHz)

Test Requirement:	47 CFR Part 15, Subpart B
Test Method:	ANSI C63.4:2014
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Limit:	
30MHz -88MHz	40.0(dBμV/m) quasi-peak
88MHz-216MHz	43.5(dBμV/m) quasi-peak
216MHz-960MHz	46.0(dBμV/m) quasi-peak
960MHz-1000MHz	54.0(dBμV/m) quasi-peak
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to1000MHz

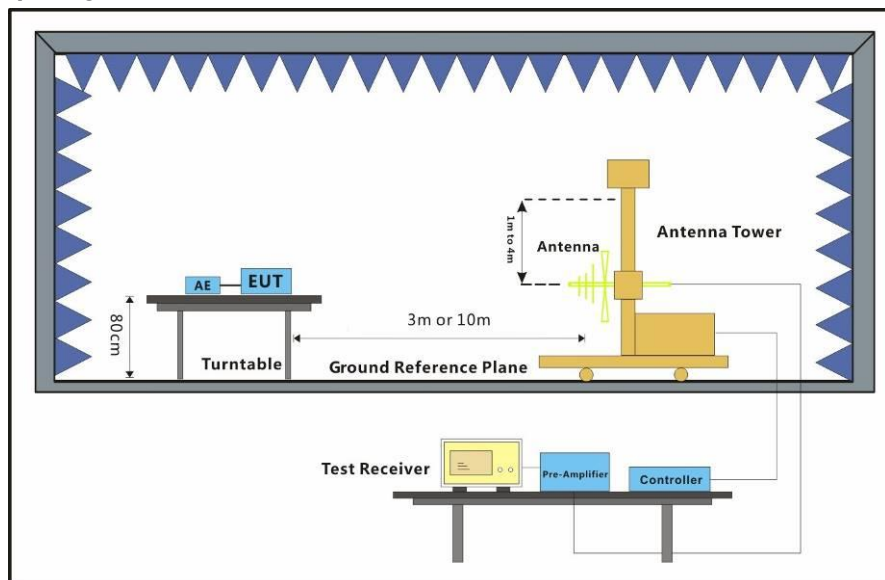
6.2.1 E.U.T. Operation

Operating Environment:

Temperature:	25 °C	Humidity:	66.5 % RH	Atmospheric Pressure:	1010 mbar
Pretest these modes to find the worst case:	o: LTE Band 2 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Front p: LTE Band 4 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Back q: LTE Band 5 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+MPE r: LTE Band 13 Rx +WiFi +BT+GPS Rx+Adapter +Earphone s: LTE Band 25 Rx +WiFi +BT+GPS Rx+Adapter +Earphone t: LTE Band 26 Rx +WiFi +BT+GPS Rx+Adapter +Earphone u: LTE Band 66 Rx +WiFi +BT+GPS Rx+Adapter +Earphone v: LTE Band 25 Rx +WiFi +BT+GPS Rx+USB link +Earphone				

The worst case o: LTE Band 4 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Back for final test:

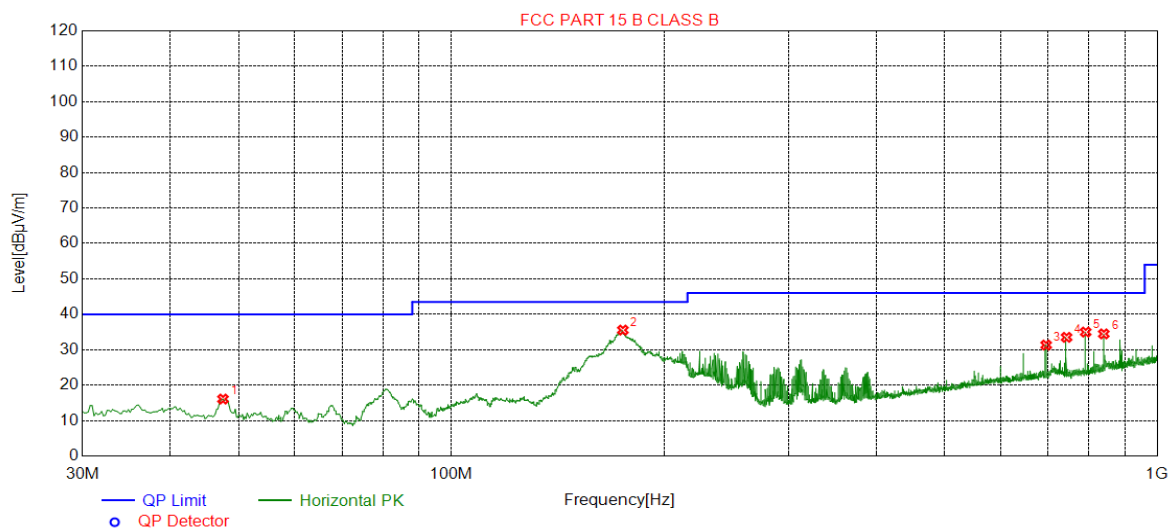
6.2.2 Test Setup Diagram



6.2.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

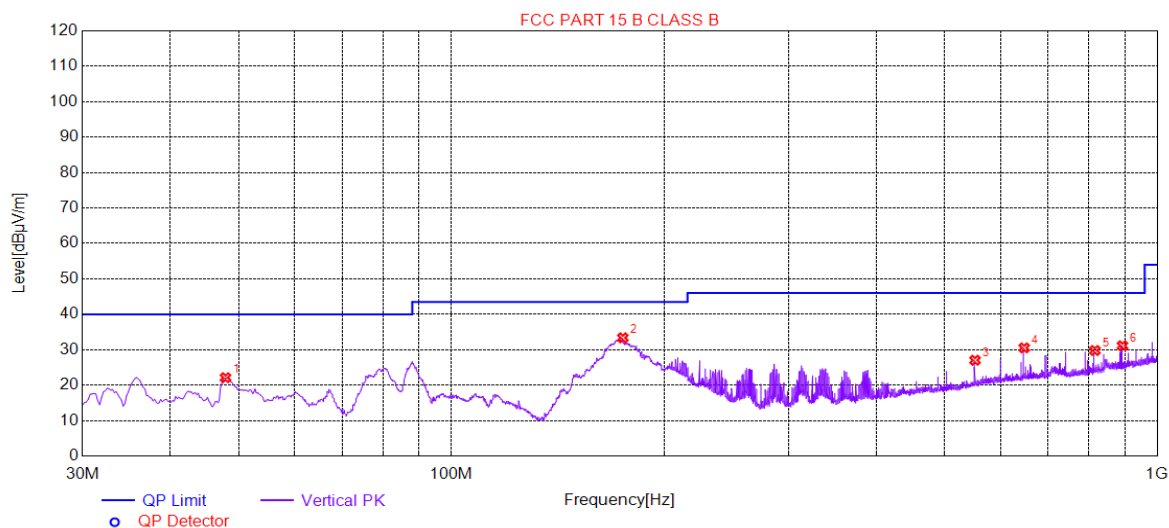
Mode:o; Polarization:Horizontal



Suspected List

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	47.4635	16.08	-30.40	40.00	23.92	100	52	Horizontal
2	174.947	35.54	-33.67	43.50	7.96	100	34	Horizontal
3	696.135	31.32	-19.55	46.00	14.68	100	341	Horizontal
4	744.062	33.50	-18.47	46.00	12.50	100	14	Horizontal
5	791.990	34.99	-17.88	46.00	11.01	100	341	Horizontal
6	840.112	34.47	-17.06	46.00	11.53	100	14	Horizontal

Mode:o; Polarization:Vertical



Suspected List								
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	47.8516	22.11	-30.39	40.00	17.89	100	89	Vertical
2	174.947	33.37	-33.67	43.50	10.13	100	331	Vertical
3	551.964	27.04	-21.98	46.00	18.96	100	280	Vertical
4	648.013	30.53	-20.05	46.00	15.47	100	267	Vertical
5	816.051	29.78	-17.50	46.00	16.22	100	30	Vertical
6	892.890	31.13	-16.15	46.00	14.87	100	36	Vertical

6.3 Radiated Emissions (above 1GHz)

Test Requirement: 47 CFR Part 15, Subpart B
 Test Method: ANSI C63.4:2014
 Frequency Range: Above 1GHz
 Measurement Distance: 3m
 Limit:
 Above 1GHz 74(dB μ V/m) peak, 54(dB μ V/m) average
 Detector: Peak for pre-scan (1000kHz resolution bandwidth) 1000M to18000MHz

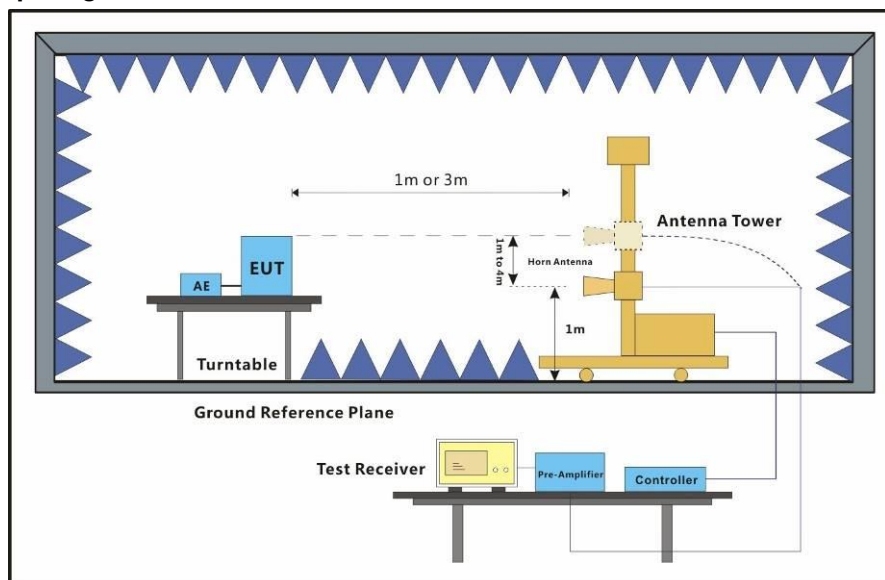
6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 21.7 °C Humidity: 56.4 % RH Atmospheric Pressure: 1010 mbar
 Pretest these modes to find the worst case:
 o: LTE Band 2 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Front
 p: LTE Band 4 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Back
 q: LTE Band 5 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+MPE
 r: LTE Band 13 Rx +WiFi +BT+GPS Rx+Adapter +Earphone
 s: LTE Band 25 Rx +WiFi +BT+GPS Rx+Adapter +Earphone
 t: LTE Band 26 Rx +WiFi +BT+GPS Rx+Adapter +Earphone
 u: LTE Band 66 Rx +WiFi +BT+GPS Rx+Adapter +Earphone
 v: LTE Band 25 Rx +WiFi +BT+GPS Rx+USB link +Earphone

The worst case for final test: o: LTE Band 4 Rx +WiFi +BT+GPS Rx+Adapter+Earphone+Camera Back

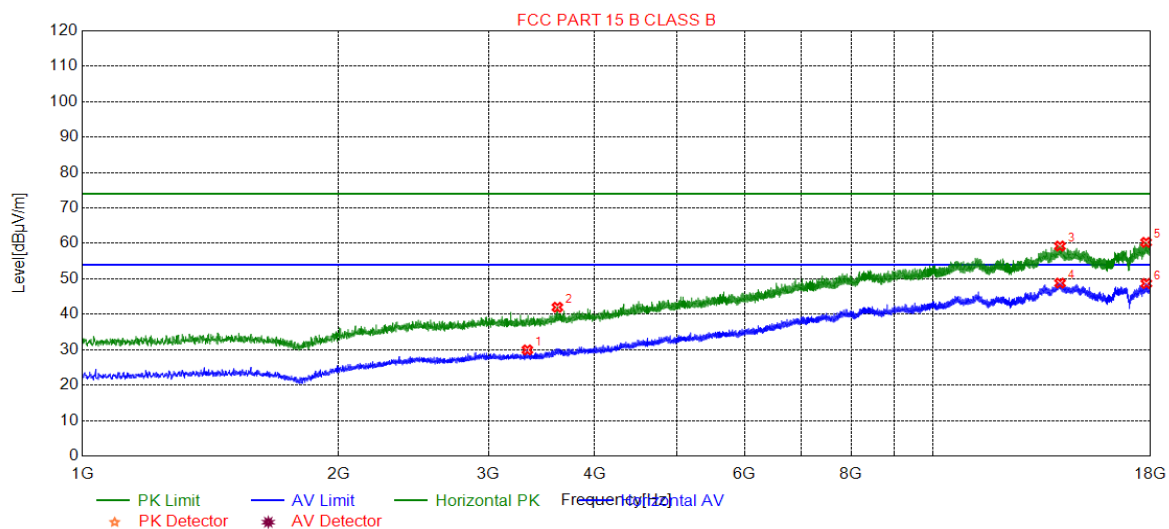
6.3.2 Test Setup Diagram



6.3.3 Measurement Data

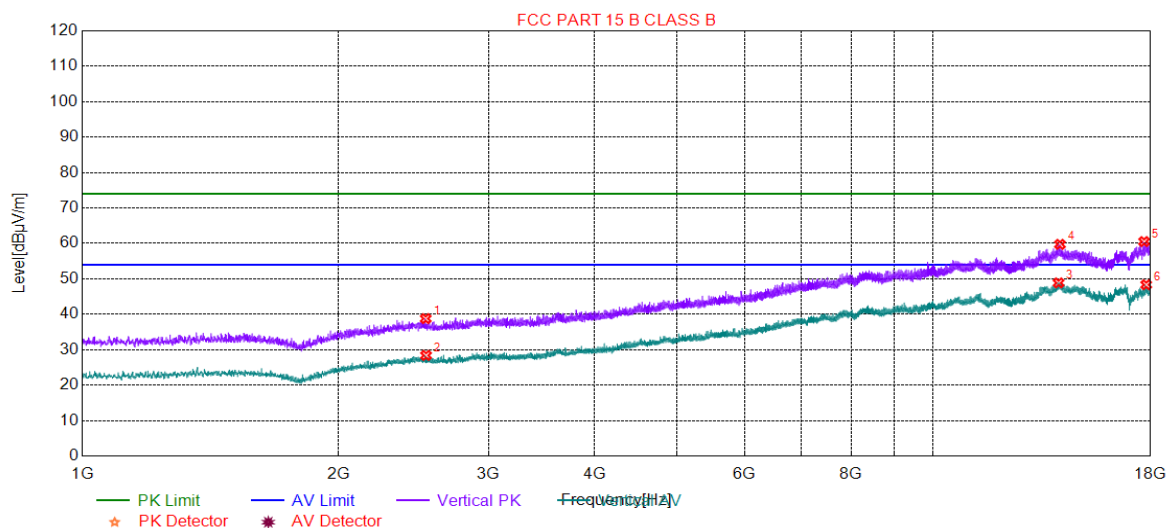
An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

Mode:o; Polarization:Horizontal



Suspected List								
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	3333.36	29.95	-23.69	54.00	24.05	200	69	Horizontal
2	3615.58	41.98	-22.69	74.00	32.02	100	191	Horizontal
3	14083.0	59.25	2.34	74.00	14.75	200	120	Horizontal
4	14088.1	48.80	2.35	54.00	5.20	200	360	Horizontal
5	17778.9	60.29	0.76	74.00	13.71	200	323	Horizontal
6	17792.5	48.69	0.72	54.00	5.31	100	191	Horizontal

Mode:o; Polarization:Vertical



Suspected List								
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2531.77	38.78	-25.88	74.00	35.22	200	322	Vertical
2	2534.32	28.39	-25.88	54.00	25.61	100	190	Vertical
3	14032.0	48.86	2.28	54.00	5.14	100	0	Vertical
4	14084.7	59.74	2.34	74.00	14.26	100	342	Vertical
5	17683.7	60.53	1.03	74.00	13.47	200	322	Vertical
6	17786.6	48.34	0.74	54.00	5.66	200	119	Vertical



7 Photographs

7.1 Conducted Emissions at Mains Terminals (150kHz-30MHz) Test Setup

7.2 Radiated Emissions (30MHz-1GHz) Test Setup

7.3 Radiated Emissions (above 1GHz) Test Setup

7.4 EUT Constructional Details (EUT Photos)

Refer to Photographs of EUT Constructional Details

- End of the Report -